Vonets VSP500

Vonets VSP500 Industrial PoE Gigabit Switch User Manual

MODEL: VSP500

Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the Vonets VSP500 5-Port Metal Industrial PoE Gigabit Switch. The VSP500 is designed for robust network connectivity in various environments, offering 4 PoE (Power over Ethernet) 10/100/1000Mbps RJ45 ports and 1 uplink port. It supports IEEE802.3/3i/3u/3x/3ab/3z/3af/3at protocols, ensuring broad compatibility and reliable performance.

Figure 1: Top-down view of the Vonets VSP500 switch, highlighting its compact design and port layout.

Key Features

- **PoE 5-Port Gigabit Switch:** Features 4 PoE (10/100/1000Mbps RJ45 ports) and 1 uplink port, supporting IEEE802.3/3i/3u/3x/3ab/3z/3af/3at protocols.
- **Plug & Play Operation:** Requires no software or complex configuration. Simply connect the power and Ethernet cables for automatic device detection and PoE power supply.
- **Flexible Power Input/PoE Output:** Supports DC input voltage from 12V to 48V. With PoE output, it requires DC48V input for a typical output power of ≥ 96W (e.g., 48V/2A).
- **Adaptable to Harsh Environments:** Designed to operate in temperatures ranging from -40°C to 55°C. Features a thickened aluminum alloy shell for fast heat dissipation and durability in industrial settings.
- **Broad Compatibility:** Suitable for a wide range of applications including home, commercial, and project-based PoE networks, supporting devices like PoE cameras, PoE APs, computers, and smart TVs.

Setup Guide

The Vonets VSP500 switch is designed for straightforward installation. Follow these steps to set up your device:

1. **Power Connection:** Connect the appropriate DC power adapter (12V-48V for non-PoE output, 48V for PoE output) to the power input port on the switch. Ensure the power source meets the specified requirements.

2. **Network Device Connection:** Connect your network devices (e.g., computers, servers, NVRs, PoE cameras, PoE APs) to the RJ45 ports on the switch using standard Ethernet cables. The switch will automatically detect and provide power to PoE-compatible devices.
3. **Uplink Connection:** Use the dedicated uplink port to connect the switch to your router, modem, or main network infrastructure.

Figure 2: Side view of the VSP500, illustrating the power input and Ethernet ports for connection.

The VSP500 also supports wall mounting for flexible deployment. The robust metal casing ensures stable performance even when mounted in industrial settings.

Figure 3: The VSP500 switch shown mounted on a rail, indicating its suitability for industrial installations.

Operating Instructions

Once powered on and connected, the Vonets VSP500 operates automatically. It functions as a plug-and-play device, requiring no manual configuration for basic network extension and PoE power delivery.

- **Automatic Detection:** The switch automatically detects connected devices and negotiates the appropriate speed (10/100/1000Mbps) and duplex mode. For PoE devices, it automatically detects PoE compatibility and supplies power according to IEEE 802.3af/at standards.
- **Data Transmission:** The full Gigabit ports ensure high-speed data transmission, making it suitable for bandwidth-intensive applications.
- **Application Scenarios:** The VSP500 is versatile and can be deployed in various environments, including home networks, commercial offices, and industrial projects requiring reliable data and power transmission.

Figure 4: Examples of environments where the VSP500 switch can be effectively utilized.

Maintenance and Environmental Considerations

The Vonets VSP500 is built for durability and minimal maintenance, especially in challenging conditions:

- **Robust Construction:** The one-piece thickened aluminum alloy shell provides excellent heat dissipation and protection, contributing to its long-term stability and durability.
- **Temperature Resilience:** Designed to withstand extreme temperatures, operating effectively from -40°C to 55°C. Industrial temperature compensating devices help maintain stable communication rates across this range.
- **Cleaning:** To clean the device, disconnect power and gently wipe the exterior with a dry, soft cloth. Do not use liquid cleaners or aerosols.
- **Ventilation:** Ensure adequate airflow around the device to prevent overheating, especially in enclosed spaces.

Figure 5: The VSP500's capability to withstand a wide range of operating temperatures.

Troubleshooting

If you encounter issues with your Vonets VSP500 switch, consider the following common troubleshooting steps:

- **No Power:** Ensure the power adapter is securely connected to both the switch and a working power outlet. Verify the power source voltage matches the switch's requirements.
- **No Network Connectivity:** Check all Ethernet cable connections. Ensure cables are properly seated and not damaged. Verify that connected devices are powered on and functioning correctly.
- **PoE Device Not Powering On:** Confirm that the connected device is PoE compatible. Ensure the power supply to the switch is 48V DC to enable PoE output. Check the power requirements of the PoE device to ensure it does not exceed the switch's per-port or total PoE budget.
- **Slow Network Speed:** Verify that all connected devices and cables support Gigabit Ethernet. Ensure there are no excessive network loops or broadcast storms.
- **Intermittent Connection:** Check for loose cable connections. Ensure the operating environment is within the specified temperature range.

If problems persist after attempting these steps, please refer to the support information provided by Vonets.

Technical Specifications

Feature	Specification
Model Number	VSP500
Interface Type	PoE
Number of Ports	5 (4 PoE 10/100/1000Mbps RJ45 + 1 Uplink)
Power Input	DC 12V~48V
PoE Output (with 48V input)	≥ 96W (typical 48V/2A)
Operating Temperature	-40°C ~ 55°C
Case Material	Metal (Aluminum Alloy)
Item Weight	5.9 ounces
Package Dimensions	4.37 x 3.82 x 1.26 inches
UPC	739713671367
Manufacturer	Shenzhen Houtian Network Communication Technology Co.,Ltd
Compatible Devices	Desktop

Package Contents

The Vonets VSP500 package typically includes the following items:

- Vonets VSP500 Industrial PoE Gigabit Switch
- Chip (internal component, not a separate accessory for user installation)

Note: Power adapter and Ethernet cables are typically sold separately unless specified by the retailer.

Warranty and Support

For information regarding warranty coverage, technical support, or service inquiries for your Vonets VSP500 switch, please refer to the official Vonets website or contact their customer support directly. Keep your purchase receipt as proof of purchase for warranty claims.